

# Claims

- [c1] 1. A conveying system comprising:
- a conveyor conveying articles in a direction of travel along a carryway, the conveyor including:
    - a plurality of transport elements arranged on the conveyor to ride along parallel lateral tracks transverse to the direction of travel; and
    - a motor associated with each of the transport elements to drive the associated transport element along one of the tracks; and
    - a local controller associated with each of the transport elements and with the associated motor to control the activation of the motor.
- [c2] 2. A conveying system as in claim 1 further comprising a sensor electrically connected to an associated local controller to provide a sensor signal indicative of a position along the carryway.
- [c3] 3. A conveying system as in claim 1 wherein the conveyor further includes a coil associated with a transport element for inductively coupling electric power to the associated local controller.

- [c4] 4. A conveying system as in claim 1 wherein the conveyor further includes a coil associated with a transport element for receiving message signals and further including a receiver electrically coupled to the coil to extract the message signals from the coil.
- [c5] 5. A conveying system as in claim 1 further comprising a transceiver associated with each transport element for transmitting and receiving message signals.
- [c6] 6. A conveying system as in claim 1 wherein the conveyor further includes a battery associated with a transport element to power the associated local controller and motor.
- [c7] 7. A conveying system as in claim 6 wherein the battery is a rechargeable battery.
- [c8] 8. A conveying system as in claim 1 further comprising:
  - a system controller external to the conveyor; and
  - a communications link between the system controller and the local controller.
- [c9] 9. A conveying system as in claim 1 wherein each of the transport elements has a uniquely associated motor.
- [c10] 10. A conveying system as in claim 1 wherein the motor is located with its associated transport element to ride

with the transport element along one of the tracks.

[c11] 11. A conveying system as in claim 1 wherein the local controller is located with its associated transport element to ride with the transport element along one of the tracks.

[c12] 12. A conveying system as in claim 1 wherein the motor is disposed at a fixed position in the conveyor.

[c13] 13. A conveying system as in claim 1 wherein the local controller is disposed at a fixed position in the conveyor.

[c14] 14. A conveying system comprising:  
a slat conveyor conveying articles in a direction of travel along a carryway, the slat conveyor including:  
a plurality of parallel drag chains driven in the direction of travel;  
a plurality of parallel slats attached to and spanning the drag chains, at least some of the slats including:  
a lateral slot formed in the slat in a direction transverse to the direction of travel;  
a transport element arranged to ride along the slot;  
a motor arranged to drive the transport element

along the slot; and  
a local controller associated with the motor to  
control the activation of the motor.

- [c15] 15. A conveying system as in claim 14 further comprising:  
an electric power source external to the slat conveyor  
and including an ungrounded terminal; and  
wherein the plurality of drag chains includes a powered drag chain electrically connected to the ungrounded terminal of the electric power source to power the motor.
- [c16] 16. A conveying system as in claim 15 wherein the powered drag chain includes sockets along its length and  
wherein at least some of the slats include a prong that plugs into the sockets to provide the motor with electric power from the powered drag chain.
- [c17] 17. A conveying system as in claim 14 further comprising a powered rail disposed in the slot.
- [c18] 18. A conveying system as in claim 14 wherein the motor is located with the transport element to ride with the transport element along the slot.
- [c19] 19. A conveying system as in claim 18 further comprising a powered conducting rail disposed in the slot and a

brush extending from the transport element to contact the powered conducting rail to provide electric power to the motor.

[c20] 20. A conveying system as in claim 14 wherein the slat forms a cavity in which the motor is mounted.